

ABSTRACT OF THE INVENTION

An active bias is formed on a wafer which an electrical circuit is formed and produces a biasing voltage applied to an input signal which is additionally applied to the electrical circuit. In particular, the active bias may comprise at least one transistor, and is preferably, the same type of transistor forming the electrical circuit such that wafer lot variations affecting the electrical circuit may correspondingly affect the characteristics of the active bias. The active bias may comprise one field effect transistor with its drain electrically connected to the output of the electrical circuit. Additionally, the drain may be electrically connected to the gate of the transistor. In this regard, the current through the transistor may produce a voltage at the drain of transistor and respectively at the gate of the transistor. This voltage may then be applied to the electrical circuit as the biasing voltage. In this circuit, the current through the transistor will vary due to wafer lot variations and as a result, will correspondingly change the biasing voltage to be applied to the electrical circuit. The active bias may additionally comprise additional transistors wherein the channels of each transistor are electrically connected to the gates of the other transistor. In this regard, the current through the transistors are regulated by each other to prevent the transistors from having an excessive increase or decrease in current flowing therethrough.